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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/348,506 | 07/07/1999 | BOZIDAR FEREC-PETRIC | P-8027 | 5334 |

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MEDTRONIC INC
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EXAMINER

PRIETO, BEATRIZ

ART UNIT

PAPER NUMBER

2152

DATE MAILED: 02/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/348,506

Applicant(s)

FEREK-PETRIC, BOZIDAR

Examiner

B. PRIETO

Art Unit

2152

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 04.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Detailed Action

1. Drawings received have been reviewed by the Draftsperson. Formal drawings have been approved and stamped accordingly.

Claim/Specification Objections

2. Claim 1 is objected to under 37 C.F.R. 1.75(a)-(d) because of the following informalities: the use of the following acronym "SPC" and "PC" is noted in the instant application's claim. Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner, which might adversely affect their validity as trademarks. PC is a registered trademark of International Business Machines Corporation. The term "SPC" has not been properly spelled-out in the claim limitation. Correction is required. For the purposes of examination the terms "SPC" and "PC", will be interpreted as being a personal computer.
3. The specification of instant application is objected because of the multiple use of acronyms that are not spelled-out at their initial recitation in the disclosure, for example, "SPC" and "DDDR" on page 8, "ECG" in page 10, "DBS" on page 10, "QRS" on page 16, "IEGM" on page 18, "ARIS" and "TAG" on page 21, correction is required. Also the terms "unlink" appears misspelled throughout the specification, correction is required.
4. The following is a quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brady U.S. Patent No. 6,312,378.

Regarding claim 1, Brady teaches substantial features of the invention as claimed, teaching a system (1) for remote communication with a medical (12) device (col 3/lines 10-14) comprising:

a first personal computer for communicating with said medical device (col 6/lines 6-15), said device implantable into a patient (11) (col 5/lines 12-22), and for transmitting across the Internet (col 5/lines 49-col 6/line 6); and

a second personal (16) computer having means for receiving data transmitted across a dispersed communication pathway from the first personal computer (col 6/lines 57-61, col 11/line 1-4).

It would have been obvious to one ordinary skilled in the art at the time the invention was made to implement the communicating, transmitting and receiving functions between computers and a medical device in the same fashion as claimed, motivation would be support the automated collection and analysis of patient data retrieved from a remote medical device to determine the patient status and then triaged and prioritized for an appropriate level of alert and interaction, as suggested by Brady.

Regarding claims 2 and 10, said first personal computer transmitting along a first channel and a second channel (Brady: col 7/lines 60-66, channel link(s), col 16/line 24-29); and said second personal (16) computer for receiving said data along said channel link(s) (Brady: col 5/lines 63-col 6/line 15), and for communicating through the Internet to said first computer (Brady: col 9/lines 7-10).

Regarding claims 3, and 7-9, a programmer (14) providing a means for interacting with an medical device (Brady: col 5/lines 49-59, external programmer, col 5/line 60-col 6/line 1), programmer interacting means comprise means for interrogating the medical device (Brady: col 5/lines 60-col 6/line 5), downloading data from the medical device (Brady: col 21/lines 23-29, col 6/line 1-5), and uploading data to the medical device (Brady: col 15/line 59-62).

6. Claims 4-6 and 11-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bardy U.S. Patent No. 6,312,378 in view of Vandegriff et. al. (Vandegriff) U.S. Patent No. 5,873,894.

Regarding claim 4-6, however the above-mentioned reference does not explicitly teach wherein the programmer interacting means comprise a means for testing the medical device, sensing a connection interruption between the server and itself, and means for terminating any testing being performed by the medical device should the means for sensing the connection interruption sense a connection interruption.

Vandegriff teaches wherein the programmer interacting means comprise a means for testing the medical device (abstract), wherein the programmer has means for sensing a connection interruption between the server and programmer (col 4/lines 55-col 5/line 3), and wherein the programmer has means for terminating any testing being performed by the medical device should the means for sensing the connection interruption sense a connection interruption (col 5/line 4-11).

It would have been obvious to one ordinary skilled in the art at the time the invention was made to incorporate means wherein the programmer has means for testing the medical device, sensing a connection interruption between the server and itself, and terminating any testing being performed by the said device upon detection of said interruption, motivation would be to enable means to complete the diagnostic test without further communication from the programmer or initiate communication with the programmer during a refractory period in which signal from the programmer will not interfere with the diagnostic test, as taught by Vandegriff.

Regarding claims 19-26, server communicated with the medical device including transmitting data across the Internet implemented using a TCP/IP protocol stack (Bardy: col 6/lines 57-65), however Bardy does not explicitly teach the following features; (i) transmitting data in one or more data packet and (ii) data packet(s) each have a confirmation receipt whereby the second personal computer, upon receipt of each of the one or more data packets, transmits back to the recipient first personal computer that the one or more data packets was received, (v) a second

data protocol includes data packet receipt information, (iii) data packet(s) do not have a confirmation receipt, (iv) handshaking procedures.

Features (i-iv) are inherent to the TCP/IP suite protocol standard technology; It would have been obvious to one ordinary skilled in the art at the time the invention was made that the communication between the server and the medical device implemented as a TCP/IP protocol stack has: the (i) transmission of data packet(s), (ii) wherein said data packet(s) each include or do not include an acknowledgement (i.e. confirmation receipt) from the recipient whereby a transmission back from the recipient to the sender is included, wherein the data packet receipt information, (iv) handshaking procedures (see Refs A-B). Said features are also admitted in applicant's specification and hereby also taken as being available as prior art against the claims. Admitted prior art can be used in obviousness rejections. In re Nomiya, 509 F.2d 566, 184 USPQ 607, 610 (CCPA 1975); e.g. (i) transmitting data in one or more data packet and (ii) acknowledgment (i.e. confirmation receipt) or lack of acknowledgement with respect to transmission(s), as known in the art (see TCP/IP characteristics, see specification pages 4-5), (iii) data packet(s) do not have a confirmation receipt (see UDP characteristics, see specification page 6, and 9).

Regarding claims 27-28, wherein said first personal computer has means for communicating to the medical device through an electromagnetic coupling (Vandegriff, col 6/lines 19-23), and wherein the electromagnetic coupling comprises a head transmitting and receiving electromagnetic signals to the medical device (Vandegriff, col 6/lines 34-42).

Regarding claims 29-32, however above-mentioned references do not explicitly teach wherein a first computer has means for transmitting an applet to the client, wherein the applet comprises an executable program which performs tasks on the second computer without having to send a request back to the first computer, and wherein the medical device has means for generating Java applets; and means for determining the delay between data sent from the server to its receipt by the client, the client having means for displaying to a user the determined delay at pre-selected times.

Official Notice (see MPEP § 2144.03 Reliance on "Well Known" Prior Art) is taken that the use of applets was old and well known in the Data Processing art. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include applets because it enhances the recipient computer display, and processing capabilities, platform independently, (see Ref C). It further would have been obvious to one ordinary skilled in the art at the time the invention was made to include a traceroute program for the computation and display of the roundtrip interval (i.e. delay) between communicating computers, motivation would be requires no special or optional feature or server application and it uses an standard IP field, program is used to detect infinite loops caused by abrupt communication path and it is used to detect the fasted path between endpoints (see Ref B).

Regarding claims 33-34, the above mentioned reference(s) teach a programmer, the programmer (14) receiving data from an implanted medical (12) device ((Bardy: col 6/lines 57-65, col 5/lines 49-col 6/line 1); wherein communication with the medical device is implemented via a TCP/IP protocol stack; however Bardy does not explicitly teach fragmentation/re-assembling of formatted packet for transmission and reception through an Internet communication link; *these features are inherent* to the TCP/IP protocol standards, as discussed above (see Ref A).

Regarding claim 35, means for inputting commands to the implanted device (Brady: uploading commands to the medical device, col 15/line 59-62).

Regarding claims 11-18, classifying users according to a predetermine set of categories (groups) as either a first client user or a second client user and providing an interface associated with said category, wherein said categories determine the level of access to the medical device, wherein levels of access include access to observe only medical device operations and access to information stored in the medical device.

Official Notice (see MPEP § 2144.03 Reliance on "Well Known" Prior Art) is taken that access control wherein user (trustees) are group and correlated to specific access right related to that group, wherein access right include different types of specific accesses (e.g. read, write, execute modify operations, individually or combination of these) corresponding to specific

entities (i.e. hardware/software resources was old and well known in the Data Processing art. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include means for classifying users according to a predetermine set of categories (groups) as either a first client user or a second client user and providing an interface associated with said category, wherein said categories determine the level of access to the medical device, wherein levels of access include access to observe only medical device operations and access to information stored in the medical device, motivation would be to control the access to hardware/software resources and supportive user interface to grant, deny, revoke, determine access right to said hardware/resource entities. (see Ref D).

Citation of Pertinent Art:

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure; Copies of documents cited will be provided as set forth in MPEP§ 707.05(a):

Ref A: Internetworking with TCP/IP, Vol I, Principles, protocols and architecture, Comer, Douglas E. 3rd ed. Englewood Cliffs, NJ, Prentice Hall, Inc. 3/1995 (pages 5-9, 193-195 and 216-219);

(i) means for dis-assembling (fragmenting) the received data into formatted packets of data, transmitting said formatted data, re-assembling formatted packets of data into re-produced data, the re-produced data corresponding to the received data (Comer: pages 95-98, TCP/IP datagram formation/handling/transmission);

(ii) transmitting data in packets (Comer: page 5), means for returning an acknowledgment (confirmation receipt), and means for not returning an acknowledgment (Comer: page 9, see TCP vs. UDP, pages 193-195);

(iii) handshake procedure including an unique IP address of the parties exchanging information, initiated session exchange uniquely identifying communicating computers (Comer: pages 216-219).

Ref B: The Protocols, TC/IP Illustrated, Vol. I, W. Richard Stevens, Addison-Wesley Longman, Inc., dated 1994 (see handshake protocol and traceroute program).

(iii) handshake procedure including an unique IP address of the parties exchanging information, initiated session exchange uniquely identifying communicating computers (Stevens: pages 228-233, see connection establishment protocol (handshake));

(iv) traceroute program, means for calculating the roundtrip (delay) and displaying said delay at predetermined intervals (see Stevens, page 97-99).

Ref C: NEWTON'S TELECOM DICTIONARY, Newton, H., Flatiron Publishing, 14th Expanded and Updated Ed., March, 1998, (see applet, java, and java-script).

Ref D: U.S. Patent No. 5,887,139, (03/23/99);

Madison, Jr. et. al. teach means wherein a server (14) transmits data using an Internet communication link to medical (16-22) devices using UDP protocol, (col 3/lines 23-27, col 3/line 60-col 4/line 6).

Ref E: U.S. Patent No. 5,675,782, (10/07/97);

Montague et. al. teaches classifying users (first/second client) into groups according to a predetermine set of categories and providing an interface (Figs. 3-8) associated with said category, wherein said categories determine the level of access to the software resource (medical device), wherein levels of access include access to read (observe) only said resource (col 1/lines 5-col 3/line 27).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Prieto, B.** whose telephone number is **(703) 305-0750**. The Examiner can normally be reached on Monday-Friday from 6:30 to 4:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, **Mark H. Rinehart** can be reached on **(703) 305-4815**. The fax phone number for the organization where this application or proceeding is assigned is **(703) 308-6606**. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is **(703) 305-3800/4700**.



B. Prieto

Patent Examiner

February 20, 2002

MEHMET B. GECKIL
PRIMARY EXAMINER

